

# Mineral Industry Surveys

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# **SILICON IN FEBRUARY 2006**

Preliminary data for February 2006 indicate that domestic production and net shipments of silicon ferroalloys plus metal, on a gross-weight basis, decreased by 5% and increased by 6%, respectively, compared with that in January 2006, according to the U.S. Geological Survey. Stocks decreased by 2% compared with those of the prior month, which included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Based on a gross-weight comparison of January 2006 export data (table 2) to those of December 2005, ferrosilicon exports increased by 25%, owing primarily to an increase in the

ferrosilicon, other, trade category. Silicon metal exports increased by 46%, owing to increases in the 99.00% to 99.99% silicon and "other" silicon metal trade categories.

Based on a gross-weight comparison of January 2006 import data (table 3) with those of December 2005, ferrosilicon imports decreased by 27%, owing primarily to a decrease in the ferrosilicon, 55%-80% silicon, other, trade category. Silicon metal imports increased by 13% over the same period primarily because of increases in the 99.00%-99.99% silicon and "other" silicon metal trade categories.

## Prices, cents per pound, silicon content

	50% Ferrosilicon <sup>1</sup>	75% Ferrosilicon <sup>2</sup>	Silicon Metal <sup>2</sup>
February 2	52.00-54.00	48.00-50.00	70.00-73.00
February 9	52.00-54.00	48.00-50.00	70.00-74.00
February 16	52.00-54.00	48.00-50.00	70.00-74.00
February 23	52.00-54.00	48.00-50.00	70.00-74.75

<sup>1</sup>Source: Ryan's Notes, North American transaction price.

<sup>2</sup>Source: Platts Metals Week, dealer import price.

TABLE 1 U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN  $2006^{1,2,3}$ 

### (Metric tons)

	Gross production <sup>4</sup>		Net s	Stocks,	
Material	February	Year to date	February	Year to date	February 28
Ferrosilicon, all grades <sup>5, 6</sup>	25,100	51,200	22,100	41,400	27,900
Silicon metal, excludes semiconductor grades	6,600	13,900	6,500	14,000	1,660

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits.

 ${\it TABLE~2} \\ {\it U.S.~EXPORTS~OF~FERROSILICON~AND~SILICON~METAL~IN~JANUARY~2006}^{1,\,2}$ 

# (Metric tons, unless otherwise specified)

					Year to date	
	Gross	Contained		Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
Ferrosilicon:	_					
More than 55% silicon:						
Canada	373	224	\$376,000	373	224	\$376,000
Colombia	5	4	7,800	5	4	7,800
Mexico	74	44	101,000	74	44	101,000
Total	452	272	485,000	452	272	485,000
Other ferrosilicon:						
Canada	181	90	181,000	181	90	181,000
Colombia	14	6	19,500	14	6	19,500
Mexico	95	48	117,000	95	48	117,000
Total	289	144	318,000	289	144	318,000
Total ferrosilicon	741	416	803,000	741	416	803,000
Metal:						
More than 99.99% silicon:						
China	88	XX	6,620,000	88	XX	6,620,000
Finland	21	XX	858,000	21	XX	858,000
Germany	215	XX	11,600,000	215	XX	11,600,000
Italy	13	XX	959,000	13	XX	959,000
Japan	597	XX	44,100,000	597	XX	44,100,000
Korea, Republic of	114	XX	9,120,000	114	XX	9,120,000
Malaysia	7	XX	1,030,000	7	XX	1,030,000
Norway	198	XX	10,300,000	198	XX	10,300,000
Taiwan	31	XX	1,870,000	31	XX	1,870,000
United Kingdom	21	XX	1,530,000	21	XX	1,530,000
Other (14 countries)	22	XX	1,230,000	22	XX	1,230,000
Total	1,330	1,330 e	89,200,000	1,330	1,330 e	89,200,000
99.00% - 99.99% silicon:						
Belarus	34	34	37,700	34	34	37,700
Brazil	40	39	95,700	40	39	95,700
China	17	17	24,000	17	17	24,000
Costa Rica	3	2	6,010	3	2	6,010
Germany	292	289	851,000	292	289	851,000
Japan	12	12	10,800	12	12	10,800
Mexico	7	7	10,100	7	7	10,100
United Kingdom	2	2	2,830	2	2	2,830
Total	406	403	1,040,000	406	403	1,040,000

See footnotes at end of table.

 $<sup>^2\</sup>mbox{Includes U.S.}$  Geological Survey estimates.

<sup>&</sup>lt;sup>3</sup>Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

<sup>&</sup>lt;sup>4</sup>Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

<sup>&</sup>lt;sup>5</sup>Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

<sup>&</sup>lt;sup>6</sup>Includes miscellaneous silicon alloys.

 $\label{eq:table 2--Continued}$  U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JANUARY  $2006^{1,\,2}$ 

(Metric tons, unless otherwise specified)

	Gross	Contained		Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
MetalContinued:						
Other silicon:						
Brazil	19	18	\$25,100	19	18	\$25,100
Canada		21	29,200	22	21	29,200
China	45	44	60,000	45	44	60,000
Germany	<del></del> 7	7	18,200	7	7	18,200
Japan	<del>-</del> 19	18	80,500	19	18	80,500
Korea, Republic of	596	578	786,000	596	578	786,000
Mexico	8	7	27,100	8	7	27,100
Netherlands		24	301,000	26	24	301,000
Total	740	719	1,330,000	740	719	1,330,000
Total silicon metal	2,480	2,450	91,500,000	2,480	2,450	91,500,000

<sup>&</sup>lt;sup>e</sup>Estimated. XX Not applicable.

Source: U.S. Census Bureau.

TABLE 3 U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY  $2006^{1,2}\,$ 

(Metric tons, unless otherwise specified)

				Year to date			
	Gross	Contained	•	Gross	Contained		
Country	weight	weight	Value	weight	weight	Value	
Ferrosilicon:	_						
55% - 80% silicon, over 3% Ca:							
Brazil		13	\$24,500	20	13	\$24,500	
China	2	1	2,780	2	1	2,780	
Total	22	14	27,300	22	14	27,300	
55% - 80% silicon, Other:							
Brazil	1,570	1,170	1,110,000	1,570	1,170	1,110,000	
Canada	994	756	894,000	994	756	894,000	
China	2,960	2,270	1,840,000	2,960	2,270	1,840,000	
France	532	355	1,060,000	532	355	1,060,000	
Germany		13	83,800	17	13	83,800	
Norway	465	347	675,000	465	347	675,000	
Russia	3,500	2,620	2,050,000	3,500	2,620	2,050,000	
Total	10,000	7,530	7,710,000	10,000	7,530	7,710,000	
Magnesium ferrosilicon:							
Argentina		88	190,000	197	88	190,000	
Brazil	152	68	143,000	152	68	143,000	
Canada	660	304	649,000	660	304	649,000	
France	396	185	341,000	396	185	341,000	
Germany	18	10	30,700	18	10	30,700	
India		9	18,000	20	9	18,000	
Japan	32	15	50,400	32	15	50,400	
Netherlands	82	38	60,200	82	38	60,200	
Norway	628	289	586,000	628	289	586,000	
South Africa		9	21,400	19	9	21,400	
Other (China)		8	18,500	17	8	18,500	
Total	2,220	1,020	2,110,000	2,220	1,020	2,110,000	

See footnotes at end of table.

<sup>&</sup>lt;sup>1</sup>Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 3--Continued U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN JANUARY  $2006^{1,\,2}$ 

(Metric tons, unless otherwise specified)

				Year to date		
	Gross	Contained		Gross	Contained	
Country	weight	weight	Value	weight	weight	Value
FerrosiliconContinued:						
Other ferrosilicon:						
Canada	706	189	\$604,000	706	189	\$604,000
India	71	31	59,700	71	31	59,700
Total	777	220	664,000	777	220	664,000
Total ferrosilicon	13,100	8,790	10,500,000	13,100	8,790	10,500,000
Metal:						
More than 99.99% silicon:						
China	5	XX	42,900	5	XX	42,900
Denmark	2	XX	333,000	2	XX	333,000
Germany	3	XX	6,530	3	XX	6,530
Italy		XX	282,000	3	XX	282,000
Japan	78	XX	5,380,000	78	XX	5,380,000
Korea, Republic of	27	XX	1,740,000	27	XX	1,740,000
Philippines	28	XX	2,290,000	28	XX	2,290,000
Poland	3	XX	452,000	3	XX	452,000
Spain	8	XX	54,300	8	XX	54,300
Taiwan		XX	13,700	2	XX	13,700
Other (2 countries)	(3)	XX	36,500	(3)	XX	36,500
Total	159	159 e	10,600,000	159	159 e	10,600,000
99.00% - 99.99% silicon:						
Australia	502	498	788,000	502	498	788,000
Brazil	3,420	3,400	5,090,000	3,420	3,400	5,090,000
Canada	2,260	2,250	3,680,000	2,260	2,250	3,680,000
Norway	341	339	705,000	341	339	705,000
Philippines	54	53	63,400	54	53	63,400
South Africa	4,210	4,170	5,510,000	4,210	4,170	5,510,000
Sweden	1	1	7,760	1	1	7,760
United Kingdom	(3)	(3)	4,840	(3)	(3)	4,840
Total	10,800	10,700	15,800,000	10,800	10,700	15,800,000
Other silicon:				·		
Belgium	<del></del> 7	7	20,500	7	7	20,500
Brazil	1,460	1,440	2,250,000	1,460	1,440	2,250,000
Canada	681	648	752,000	681	648	752,000
Japan	7	7	21,000	7	7	21,000
Norway	1,000	985	1,550,000	1,000	985	1,550,000
Sweden	8	(3)	9,220	8	(3)	9,220
Ukraine	283	278	330,000	283	278	330,000
Total	3,450	3,370	4,940,000	3,450	3,370	4,940,000
Total silicon metal	14,400	14,200	31,400,000	14,400	14,200	31,400,000

Source: U.S. Census Bureau.

eEstimated. XX Not applicable.

Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Less than ½ unit.